

## CLAIMS

What is claimed is:

- 5 1. An encoding device in a computer system, for embedding meta-data into signals, the device comprising:
  - a. a plurality of transformation components for transforming signals according to meta-data, and;
  - b. whereby one of the transformation components is a cryptographic key.
- 10 2. An decoding device in a computer system, for extracting meta-data from signals, the device comprising:
  - c. a plurality of transformation components for transforming signals according to meta-data, and;
  - 15 d. whereby one of the transformation components is a cryptographic key.
3. An encoding device, in a computer system having a cryptographic key, for embedding meta-data into data, the device comprising:
  - a. a decomposition component for decomposing the meta-data into sets of data;
  - 20 b. an embedding component for embedding the meta-data into at least one of the sets of data, wherein the meta-data is embedded according to the cryptographic key.
4. The encoding device of claim 1, wherein the embedding is steganographic.
- 25 5. The encoding device of claim 1, wherein the cryptographic key is a public encryption key.
6. The encoding device of claim 1, wherein the cryptographic key is computed from an elliptic curve cryptographic system.

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7. A decoding device, in a computer system having a cryptographic key, for extracting meta-data embedded into digital data, the device comprising:
  - a. a decomposition component for decomposing the digital data into disjoint sets of data;
  - 5      b. an extraction component for extracting the meta-data embedded into at least one of the disjoint sets of data, wherein the meta-data is extracted according to the cryptographic key.
8. The encoding device of claim 2, wherein the meta-data is steganographically  
10      embedded.
9. The decoding device of claim 2, wherein the cryptographic key is computed using an elliptic curve cryptographic system.

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